#### Message

From: Nwosu, Bernard [Ben.Nwosu@WestonSolutions.com]

**Sent**: 2/20/2017 2:09:45 PM **To**: Daly, Eric [Daly.Eric@epa.gov]

CC: Benton, Tim [Tim.Benton@WestonSolutions.com]; Lisichenko, Peter [lisichenko.peter@epa.gov]

**Subject**: RE: HTC Lab Report/Data Tables

Good morning Eric,

We will take care of the revision and also take note of the soil sampling references to Area 6.

Thanks,

### Ben Nuosu

Senior Project Scientist / Group Leader

Weston Solutions, Inc. RST3/ED2

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Friday, February 17, 2017 4:10 PM

To: Nwosu, Bernard <Ben.Nwosu@WestonSolutions.com>

Cc: Benton, Tim <Tim.Benton@WestonSolutions.com>; Lisichenko, Peter lisichenko.peter@epa.gov>; Lang, Michael

<Michael.Lang@WestonSolutions.com>; Conway, R. Chad <R.Conway@WestonSolutions.com>

Subject: RE: HTC Lab Report/Data Tables

Thanks Ben. We noticed an error in the maping designation. We have two areas with the designation of "Area 6" at HTC. Can you please update the attached figures and revise the Area East of Area 2 from Area 6 to Area 8? We will keep the designation of Areas 5, 6 and 7 as those of the residence across from area 1. We have also performed soil sampling at these properties and reference Areas 6 & 7. These figures are located in the One Drive currently at HTC Gamma Survey 2016

Please let Pete and I know if there are any questions.

From: Nwosu, Bernard [mailto:Ben.Nwosu@WestonSolutions.com]

Sent: Friday, February 17, 2017 11:00 AM

To: Daly, Eric <Daly.Eric@epa.gov>

Cc: Benton, Tim <Tim.Benton@WestonSolutions.com>

Subject: RE: HTC Lab Report/Data Tables

I will look into this starting Monday, and I will be in touch if I have any questions.

Thanks and have a great weekend.

### Ben Nwosu

Senior Project Scientist / Group Leader

Weston Solutions, Inc. RST3/ED2

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Friday, February 17, 2017 10:54 AM

To: Nwosu, Bernard < Ben. Nwosu@Weston Solutions.com >

 $\textbf{Cc:} \ Lisichenko, Peter < \underline{lisichenko.peter@epa.gov}; \ Pellegrino, \ Carl < \underline{Pellegrino.Carl@epa.gov}; \ Conway, \ R. \ Chad$ 

<<u>R.Conway@WestonSolutions.com</u>>; Sumbaly, Smita <<u>S.Sumbaly@WestonSolutions.com</u>>; Nguyen, Lyndsey

< Nguyen.Lyndsey@epa.gov>; Kappelman, David < Kappelman.David@epa.gov>; Benton, Tim

<Tim.Benton@WestonSolutions.com>; Lang, Michael < Michael.Lang@WestonSolutions.com>

Subject: HTC Lab Report/Data Tables

### Thanks Ben.

It appears we have all the data for HTC for this most recent data set. Please perform the following

- Create a new draft data table for this data set (see the attached HTC Table 8a and Table 1 as examples).
- A row will need to be added for the added radionuclides.
- A column needs to be added for the HpGe results (Please work with Chad Conway on this).
- We will have to verify PRGs and Lyndsey will need to calculate PRGs for the new radionuclides.
- Please create a cross reference for all of our HTC data tables and figures similar to what Mike Lang did for NFB (Hopefully, Mike Lang is available to assist since he did such a great job)
- We need to have the Tables and Figures labeled properly and dated properly as described to Weston for NFB.
  - Individual Table/Figure numbers, revision date, date of the sampling/survey activity as well as description of event.

<ul> <li>Please organize all the data products as Mike did on the One Drive.</li> </ul>	
Allerings and highers that again and again, a classification that the same and areas.	

• The cross reference example for NFB link is: <u>NFB One Drive-Cross Reference</u>. This will make it easier for us moving forward when we obtain additional assessment data in the Spring.

### Thanks

From: Nwosu, Bernard [mailto:Ben.Nwosu@WestonSolutions.com]

**Sent:** Friday, February 17, 2017 9:46 AM **To:** Daly, Eric < Daly, Eric@epa.gov>

**Cc:** Lisichenko, Peter < <a href="mailto:lisichenko.peter@epa.gov">! Pellegrino, Carl < <a href="mailto:Pellegrino.Carl@epa.gov">! R. Conway@VestonSolutions.com</a>; R. Conway@WestonSolutions.com</a>; Sumbaly@WestonSolutions.com</a>; Nguyen, Lyndsey

<Nguyen.Lyndsey@epa.gov>; Kappelman, David <Kappelman.David@epa.gov>; Benton, Tim

<Tim.Benton@WestonSolutions.com>

Subject: RE: HTC Lab Report

Good morning Eric,

We have received the updated lab report, please see attached. The updated lab report accounts for all the radionuclides listed in your prior email. We do need to list all radionuclides of concern on the COC because it appears the radionuclide of concern are site-specific based on Lyndsey's lists for NFB, HTC, UMR, and CRU. Going forward we will always include our site-specific radionuclide list.

I am sure this must be frustrating for you, and we appreciate your patience. We will do our best to smooth things out going forward.

Please let me know if you have further questions.

Thank you.

# **Ben Nuota Senior Project Scientist / Group Leader**Weston Solutions, Inc. RST3/ED2

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Thursday, February 16, 2017 4:36 PM

To: Nwosu, Bernard < Ben. Nwosu@Weston Solutions.com >

Cc: Lisichenko, Peter < lisichenko.peter@epa.gov>; Pellegrino, Carl < Pellegrino.Carl@epa.gov>; Conway, R. Chad < R.Conway@WestonSolutions.com>; Sumbaly, Smita < S.Sumbaly@WestonSolutions.com>; Nguyen, Lyndsey < Nguyen.Lyndsey@epa.gov>; Kappelman, David < Kappelman.David@epa.gov>; Benton, Tim

<Tim.Benton@WestonSolutions.com>

Subject: RE: HTC Lab Report

Thanks Ben. Is that really something that is listed on a Chain of Custody? We have a standard report. We added three radionuclide to it. We changed sample prep. The report should be the same with added radionuclides no? This is a moving target regardless of the phone conferences or what we put in writing. Below is what we have in our data tables. This is what we should be getting no?

Radioisotope
Bismuth-212 (Bi-212)
Cesium-137 (Cs-137)
Lead-212 (Pb-212)
Potassium-40 (K-40)
Radium-226* (Ra-226)
Radium-228 (Ra-228)
Thallium-208 (Tl-208)
Thorium-234 Th-234)
Uranium-235 (U-235)
Thorium-228 (Th-228)
Thorium-230 (Th-230)
Thorium-232 Th-232)
Uranium-233/234 (U-233/234)
Uranium-235/236 (U-235/236)
Uranium-238 (U-238)

For the remaining reports, please ensure we have the full complement of radionuclides as indicated as well as the additional radionuclides we requested (Th-228, Th-234, Pa-234m).

When we plan new assessment/lab work in a few months, I want to obtain a new lab. We will list all these radionuclides with the sample prep procedures established.

### Thanks

From: Nwosu, Bernard [mailto:Ben.Nwosu@WestonSolutions.com]

Sent: Thursday, February 16, 2017 4:25 PM

To: Daly, Eric <Daly.Eric@epa.gov>

**Cc:** Lisichenko, Peter < <a href="mailto:lisichenko.peter@epa.gov">! Pellegrino, Carl < <a href="mailto:Pellegrino.Carl@epa.gov">! R. Conway@VestonSolutions.com</a>; R. Conway@WestonSolutions.com</a>; Sumbaly, Smita < <a href="mailto:S.Sumbaly@WestonSolutions.com">S.Sumbaly@WestonSolutions.com</a>; Nguyen, Lyndsey

< Nguyen Lyndsey@epa.gov>; Kappelman, David < Kappelman.David@epa.gov>; Benton, Tim

<Tim.Benton@WestonSolutions.com>

Subject: HTC Lab Report

Eric,

After reviewing the lab data, we observed that the COC did not indicate reporting of the omitted radionuclides. The lab has confirmed that the results for the omitted radionuclides are available, but were not reported because the COC did not request for them to be reported. We have instructed the lab to send us an updated report to include Pb210, Pb214, and Uranium-235, which were omitted in the current report. We will provide you with the updated lab report as soon as we receive it, hopefully, no later than next Monday.

Thanks for your patience,

Ben Nwosu

Senior Project Scientist / Group Leader

Weston Solutions, Inc. RST3/ED2

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Thursday, February 16, 2017 11:09 AM

To: Benton, Tim <Tim.Benton@WestonSolutions.com>

Cc: Lisichenko, Peter < lisichenko.peter@epa.gov >; Pellegrino, Carl < Pellegrino.Carl@epa.gov >; Conway, R. Chad < R.Conway@WestonSolutions.com >; Nwosu, Bernard < Ben.Nwosu@WestonSolutions.com >; Sumbaly, Smita < S.Sumbaly@WestonSolutions.com >; Nguyen, Lyndsey < Nguyen.Lyndsey@epa.gov >; Kappelman, David < Kappelman.David@epa.gov >

Subject: RE: Niagara Falls Boulevard-Pace Lab

Also, please look at attached from previous NFB lab report. Where are the lead, bismuth, etc. results in the HTC lab report? I am just trying to understand why the report is different than previous alpha spec/gamma spec combined reports.

### Thanks

From: Daly, Eric

Sent: Thursday, February 16, 2017 11:03 AM

To: 'Benton, Tim' < Tim. Benton@WestonSolutions.com>

Cc: Lisichenko, Peter <a href="mailto:com/lisichenko.peter@epa.gov">com/lisichenko.peter@epa.gov</a>; Pellegrino, Carl <a href="mailto:epa.gov">epa.gov</a>; R. Conway <a href="mailto:com/lisichenko.peter@epa.gov">com/lisichenko.peter@epa.gov</a>; R. Conway <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; R. Conway <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Nwosu, Bernard <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Nwosu, Bernard <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Nwosu, Bernard <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Nwosu, Bernard <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Nguyen, Lyndsey <a href="mailto:ewo.com/lisichenko.peter@epa.gov">ewo.com/lisichenko.peter@epa.gov</a>; Kappelman, David <a href="mailto:ewo.

Subject: RE: Niagara Falls Boulevard-Pace Lab

Thanks Tim. I guess I was looking at the other reports and not HTC. It does seem odd that asking them to not remove rocks, not sieve and just mix the samples would delay the analysis for weeks.

From: Benton, Tim [mailto:Tim.Benton@WestonSolutions.com]

Sent: Thursday, February 16, 2017 10:58 AM

To: Daly, Eric < Daly. Eric @epa.gov>

**Cc:** Lisichenko, Peter < <a href="mailto:lisichenko.peter@epa.gov">lisichenko.peter@epa.gov</a>; Pellegrino, Carl < <a href="mailto:Pellegrino.Carl@epa.gov">Pellegrino.Carl@epa.gov</a>; R. Conway@WestonSolutions.com</a>; R. Conway@WestonSolutions.com</a>; Sumbaly, Smita < <a href="mailto:S.Sumbaly@WestonSolutions.com">S.Sumbaly@WestonSolutions.com</a>; Nguyen, Lyndsey < <a href="mailto:Nguyen.Lyndsey@epa.gov">Nguyen.Lyndsey@epa.gov</a>>

Subject: RE: Niagara Falls Boulevard-Pace Lab

Eric,

We were able to speak with Carin today from Pace and have determined the complete status for the preliminary analytical results for the HTC, NFB, and 738 UMR Sites. For the HTC Site, all analyses is complete and is provided in the attached pdf that was attached to your email from yesterday morning. You will find all of the RA-226 results for each sample as qualified as RA which is defined on page 17 of the attached pdf as being run via the 21 day ingrowth.

I have also attached a spreadsheet which outlines the timing that we can expect to receive the 21-day ingrowth results for the NFB Site (listed as RFP403D) and 738 UMR Site (listed as RFP416). We should receive all of the NFB data on February 20 and 21, 2017 and the 738 UMR data on February 21 and 22, 2017. So by next Wednesday we should have all outstanding data in hand which we will forward along immediately to you.

As you state in your email below, on January 5, 2017 we instructed the laboratory to move forward with the analyses via the modified preparation procedures that you outlined in the Path Forward email. The laboratory is stating that the reason for the delay is due to the modified procedures and the fact that we instructed them to proceed with all samples for the three sites all at once.

We will be keeping our eye out for the data to come through and if we see any indications that there could be further delays we will certainly communicate that to you. However, they confirmed this timeline with us this morning so I am confident that we will have all outstanding data by next Wednesday, February 22, 2017. If you have any questions or comments please let me know. I apologize about the delay in receiving these results!

Thanks,

Tim

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Wednesday, February 15, 2017 9:14 AM

To: Benton, Tim

Cc: Lisichenko, Peter; Pellegrino, Carl; Conway, R. Chad; Nwosu, Bernard; Sumbaly, Smita; Nguyen, Lyndsey

Subject: Niagara Falls Boulevard-Pace Lab

Importance: High

Good Morning:

Can we please get an update on the analytical for the NFB, HTC and 738 UMR Sites? As far as I can tell:

- We received the initial qualitative gamma spec for NFB & 738 UMR (We aren't getting for HTC). Files attached and on OneDrive
- We received the alpha spec for NFB, HTC and 738 UMR Sites on February 10<sup>th</sup>. Files attached and on OneDrive

Shouldn't we have the 21 day in growth gamma spec data results by now? We provided them with instructions to proceed on January 5<sup>th</sup>. Tomorrow will be 5 weeks.

Lastly, Chad and Ben, please start working on updating our data tables for each sampling event. This should include the alpha spec data, the gamma spec data as well as column for corresponding HpGe results.

Thanks

From: Benton, Tim [mailto:Tim.Benton@WestonSolutions.com]

Sent: Thursday, January 05, 2017 4:08 PM

**To:** Daly, Eric < Daly. Eric @epa.gov>

Subject: RE: Niagara Falls Boulevard-Pace Lab

Eric.

The following would be the communication sent off to all involved parties. Please let me know your thoughts and then I will get it sent out.

### Carin/Richard,

Weston, in consultation with our client, wanted to confirm our path forward with all samples to be analyzed under RFP Nos. 391, 403, and 416. This summary is based on the conference call conducted on December 14, 2016.

### **General Comments**

### 1. Additional Radionuclides Added to Library

a.) On November 17, 2016, Weston requested, through Richard Kinney, to add **Th-228, Th-234, Pa-234m** to the gamma spec library. Richard confirmed via email that day but please verify this is going to be part of the data packages moving forward for all samples associated with RFP Nos. 391, 403, and 416.

### 2. Future Chain of Custody Records

- a.) We need to establish a uniformed naming convention that we apply to the requested analysis field on all COCs moving forward. The most recent samples submitted were listed on the COC as "run gamma spec first before sample prep as per phone conference". We would like for a more conventional analysis name to be created for these RFPs so that everyone on the laboratory end knows that these samples need to be handled differently than the normal procedures call for. Please provide the requested analysis name that you can ensure will be communicated to all of your laboratory personnel and we will use that moving forward for all of our COCs.
- b.) We will also be listing the sample matrix moving forward to "Soil/Rock/Slag" to reemphasize the point that the entire sample should be analyzed and no sieving of the course material is to be conducted.

# **RFP-Specific Comments:**

# 1. NFB Site - Area 1, 5 and 7 Soil Samples (Under RFP No. 403)

- a.) These are the sample results we received in November 2016 and were the reason the conference call was conducted on December 14, 2016.
- b.) Weston requested that these samples be shipped back to the NFB Site once we got into 2017. We will provide the appropriate shipping address once we receive a response back in

terms of when these samples are planned to be shipped out. The sooner the action item completed. **Please provide a shipping date as soon as possible**.

# 2. NFB Site – Low-level Concentration Samples and the Post Excavation Samples from Area 5 (Under RFP No. 403)

- a.) We shipped out the low-level concentration samples and the post excavation samples from Area 5 on December 21, 2016.
- b.) The following procedures should be performed for all of these samples:
  - 1.) There should only be (1) 16 ounce Jar for each sample now.
  - 2.) We are requesting that the laboratory run <u>our jar</u> for gamma spec initially prior to any sample preparation.
  - 3.) Chain of Custody reads "Run Gamma Spec prior to sample preparation. Per our Conference Call".
  - 4.) We understand that the geometry is slightly different from our jar to Pace jar. In the future, we will be using Pace jars provided.
  - 5.) The entire contents of that container will then be pulverized and homogenized.
  - 6.) No rocks should be removed. We do not see the reason for the material going through a sieve. It may be part of the laboratory procedure but it does not appear to serve a purpose for our needs. As discussed on the December 14, 2016 conference call, by removing the rock/slag it does not represent our sample matrix properly. If the material is pulverized and homogenized, that should be sufficient.
  - 7.) From that jar, appropriate sample amount should be transferred to another container for 21 day in-growth and then gamma spec. analysis.
  - 8.) Finally, the alpha spec aliquot will be taken from this pulverized jar content for analysis.

# 3. HTC Site (Under RFP No. 391) - Analysis was on Hold/Please Analyze

- a.) We put the analysis on hold due to the issues we were having.
- b.) According to Richard Kinney, the three HTC sample jars were mixed and dried already.
- c.) The following procedures should be performed for all of these samples:
  - 1.) The samples should be pulverized but not put through a sieve and no rock removed when homogenizing the sample.
  - 2.) Then sample amounts can be obtained for 21 day in-growth gamma spec and alpha spec. analyses.
  - 3.) We will not have analysis that will be comparable to our HpGe results since three jars have been combined already.

# 4. 738 UMR Site (Under RFP No. 416) - Analysis was on Hold/Please Analyze

- a.) We put the analysis on hold due to the issues we were having.
- b.) The following procedures should be performed for all of these samples:

- 1.) The samples should be run from <u>our jar</u> labeled "Gamma Spec Modified" for gamma spec initially prior to any sample preparation.
- 2.) The one jar labeled "Gamma Spec Modified" must be used for the analysis if there is enough material. This will be somewhat comparable to our HpGe results.
- 3.) The entire contents of that container will then be pulverized and homogenized.
- 4.) No rocks should be removed. We do not see the reason for the material going through a sieve. It may be part of the laboratory procedure but it does not appear to serve a purpose for our needs. As discussed on the December 14, 2016 conference call, by removing the rock/slag it does not represent our sample matrix properly. If the material is pulverized and homogenized, that should be sufficient.
- 5.) From that jar, appropriate sample amount should be transfer to another container for 21 day in-growth and then gamma spec. analyses.
- 6.) Finally, the alpha spec aliquot will be taken from this pulverized jar content for analysis.

I know that there is a lot of information contained within this summary but it is important that we are all on the same page as we move forward with these projects. Weston appreciates Pace's continued support of these high-profile projects and the willingness to work with us to meet all of our client's needs! If you could please provide the answers to the questions posed above and also confirm, via mail, that the direction forward is clearly understood it would be much appreciated! If there any questions or concerns please let me know.

### Thanks,

Timothy Benton, CHMM

RST 3 Operations Lead/ Deputy Program Manager

Weston Solutions, Inc. 1090 King George Post Road Suite 201

Edison, New Jersey 08837 Office Phone: (732) 585-4425 Cell Phone: (908) 565-2973

Fax: (732) 225-7037

From: Daly, Eric [mailto:Daly.Eric@epa.gov]
Sent: Thursday, January 05, 2017 2:10 PM

To: Benton, Tim

Subject: RE: Niagara Falls Boulevard-Pace Lab

Thanks Tim. Looks good. Do you have a summary with our communications extracted or do you want me to create?

From: Benton, Tim [mailto:Tim.Benton@WestonSolutions.com]

Sent: Thursday, January 05, 2017 1:59 PM

To: Daly, Eric <Daly. Eric@epa.gov>; Lisichenko, Peter lisichenko.peter@epa.gov>; R.

Conway < R.Conway @WestonSolutions.com >; Croskey, Robert

< <u>Robert.Croskey@WestonSolutions.com</u>>; Nguyen, Lyndsey < <u>Nguyen.Lyndsey@epa.gov</u>>;

Sumbaly, Smita < S.Sumbaly@WestonSolutions.com>; Nwosu, Bernard

<Ben.Nwosu@WestonSolutions.com>; Kappelman, David <<u>Kappelman.David@epa.gov</u>>;

Pellegrino, Carl < Pellegrino. Carl @epa.gov>; Francis. Campbell @Weston Solutions.com

Subject: RE: Niagara Falls Boulevard-Pace Lab

### Eric.

I have spoken with Smita and we don't see any real issues with the communication that you provided below. In addition, what is outlined below is in line with the conference call held with Pace back in Mid-December 2016 so none of this should be a surprise to them. I have inserted a few comments or answered questions below in red font. If you want me to incorporate the information into the summary and then distribute as you requested please let me know.

Thanks,

Tim

From: Daly, Eric [mailto:Daly.Eric@epa.gov] Sent: Thursday, January 05, 2017 12:13 PM

**To:** Lisichenko, Peter; Benton, Tim; Conway, R. Chad; Croskey, Robert; Nguyen, Lyndsey; Sumbaly, Smita; Nwosu, Bernard; Kappelman, David; Pellegrino, Carl; Campbell, Francis

Subject: Niagara Falls Boulevard-Pace Lab

Importance: High

Good Afternoon:

Happy New Year everyone!!!

I have discussed the Pace Lab situation with Chad and Rob yesterday. Karen Ferris from Pace lab just called Chad this morning. She also mentioned she spoke to Smita.

Chad mentioned some of our concerns and requests below. I want to ensure that our phone conference discussion and our sample preparation preferences are noted and acted upon. I have a feeling if Chad didn't put "run gamma spec first before sample prep as per phone conference" on the chain of custody, they would have just prepared and analyzed status quo. So we need specifics in writing so there is no question on what we need.

I would like some feedback today from the group on what is written below. If you are fine with what is written, please just let me know that is how you feel.

Then once a finalized summary is created, I would like Weston (with me copied) to email to Richard Kinney, Karen Ferris and any other Pace Lab representative that needs to be

informed. If we need to have an internal call tomorrow before the communication with Pace, that would be fine.

Supposedly, Monday they are set to run our samples we sent out on 12/21/2016 (low level concentration samples and the post excavation samples from Area 5). As far as I know, no further work has been performed on the HTC and 738 UMR samples that were in hand when we had the 12/14/2016 phone conference with Pace. Please give me your feedback. Thanks

General Comment: Since this is a privately-procured laboratory we really should not be using the Site names in the summary. I think if we just reference the RFP numbers associated with each line item that is all of the information that the laboratory needs. They really should not know the names of Sites our samples are coming from.

### 1. Area 1, 5 and 7 soil samples

- o These are the sample results we received back in November and had the phone conference about on December 14, 2016.
- o Do we have a Pace Lab RFP # for this? RFP No. 403
- o On December 15, 2016 Weston requested that the samples in question be shipped back to NFB Site. Weston, please find out status of the shipment of these samples. Per Pete's direction to the laboratory, they were not to ship any samples back until the start of the new year. We just spoke with the laboratory and they are going to wait until they see this summary email from us to ensure that what they have staged ready to ship back matches up with what we are currently requesting.

## 2. Additional radionuclides added to library

o On November 17, 2016, we requested to Richard Kinney to add **Th-228, Th-234, Pa-234m to** the gamma spec library. He confirmed via email that day but please verify this is going to be part of the data package moving forward. We have confirmed with the laboratory that this will be added to the library for all samples going forward.

### 3. Future Chain of Custodies

- o Whatever procedure changes or specifics we put in writing to Pace with this next email, we want to reference it in our chain of custody for NFB, HTC, 738 UMR and any future rad slag sites. We will work with the laboratory to come up with the exact analysis to be placed on the COCs that will inform their lab personnel to stop and think twice before just jumping into the analysis......Modified Method......or something along those lines. Once confirmed we will pass that on to this entire group. Plan on doing after they receive this email.
- o We should also describe the matrix as soil/rock/slag. Agreed, as a further reminder not to sieve out the course material.

# 4. Low level concentration samples and the post excavation samples from Area 5

- o We shipped out the low level concentration samples and the post excavation samples from Area 5 to Pace Lab on 12/21/2016.
- o Please provide the RFP # for this. RFP No. 403
- o I want to request Pace Lab to perform the following:

- § There should only be one-16 ounce Jar for each sample now.
- § We are requesting that they run <u>our jar</u> for gamma spec initially prior to any sample preparation.
  - · Chain of Custody reads "Run Gamma Spec prior to sample preparation. Per our Conference Call".
  - We understand that the geometry is slightly different from our jar to Pace jar. In the future, we will be using Pace jars provided.
- § The entire contents of that container will then be pulverized and homogenized.
  - No rocks should be removed. I do not see the reason for the material going through a sieve. It may be part of their procedure but it does not appear to serve a purpose. As discussed at the 12/14/2016 phone conference, by removing the rock/slag it does not represent our sample matrix properly. If the material is pulverized and homogenized, that should be sufficient.
- § From that jar, appropriate sample amount be transfer to another container for 21 day ingrowth and then gamma spec.
- § Then the alpha spec aliquot will be taken from this pulverized jar content for analysis.

### 5. Holy Trinity Cemetery HTC (RFP # 391A)-Analysis was on hold/please analyze

- o We put the analysis on hold due to the issues we were having.
- o According to Richard Kinney, the three HTC sample jars were mixed and dried already.
- o I am requesting that the sample be pulverized but not put through a sieve and no rock removed when homogenizing the sample.
- o Then sample amounts can be obtained for 21 day in-growth gamma spec and alpha spec.
- o We will not have analysis that will be comparable to our HpGe results since three jars have been combined already.

# 6. 738 Upper Mountain Road 738 UMR (RFP #416) - Analysis was on hold/please

- o We put the analysis on hold due to the issues we were having.
  - § We are requesting that they run <u>our jar</u> labeled "Gamma Spec Modified" for gamma spec initially prior to any sample preparation.
  - § We are requesting that the one jar labeled "Gamma Spec Modified" be used for the analysis if there is enough material. This will be somewhat comparable to our HpGe results.
  - § The entire contents of that container will then be pulverized and homogenized.
    - No rocks should be removed. I do not see the reason for the material going through a sieve. It may be part of their procedure but it does not appear to serve a purpose. As discussed at the 12/14/2016 phone conference, by removing the rock/slag it does not represent our sample matrix properly. If the material is pulverized and homogenized, that should be sufficient.

- § From that jar, appropriate sample amount be transfer to another container for 21 day ingrowth and then gamma spec.
- § Then the alpha spec aliquot will be taken from this pulverized jar content for analysis.

### Regards,

Eric M. Daly
On-Scene Coordinator/Radiological Response Specialist
US Environmental Protection Agency- Region II
ERRD/RPB/PPS
2890 Woodbridge Avenue
Edison, NJ 08837
daly.eric@epa.gov
908-420-1707

"We must, indeed, all hang together, or assuredly we shall all hang separately", Benjamin Franklin

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